ELSEVIER

Volume 449 issues 1–2, 10 December 2001

ANALYTICA CHIMICA ACTA

www.elsevier.com/locate/aca

CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

Review

Analytical methods for determining urinary catecholamines in healthy subjects
R.P.H. Nikolajsen and A.M. Hansen (Copenhagen, Denmark) 1

Electrochemiluminescence

Determining copper ions in water using electrochemiluminescence
B. High, D. Bruce and M.M. Richter (Springfield, MO, USA) 17

Speciation analysis

Investigation of the metal species in seawater by sorption of the metal ion on complexing resins with different sorbing properties
M. Pesavento, R. Biesuz (Pavia, Italy), C. Gnecco and E. Magi (Genova, Italy) 23

Determination of the speciation of aluminum(III) in natural waters by adsorption stripping voltammetry and complexation with Al^{III}–solochrome violet RS
X. Wang, J. Lei, S. Bi, N. Gan and Z. Wei (Nanjing, China) 35

Sensors

Reversible oligonucleotide immobilisation based on biotinylated polypyrrole film
A. Dupont-Filliard, A. Roget, T. Livache and M. Billon (Grenoble, France) 45

Neoglycoconjugates as affinity ligands in surface plasmon resonance analysis
C. Jungar and C.-F. Mandenius (Linköping, Sweden) 51

Comparison of a voltammetric electronic tongue and a lipid membrane taste sensor
P. Ivarsson (Linköping, Sweden and Vara, Sweden), Y. Kikkawa (Fukuoka, Japan), F. Winquist, C. Krantz-Rülcker (Linköping, Sweden), N.-E. Höjer (Vara, Sweden), K. Hayashi, K. Toko (Fukuoka, Japan) and I. Lundström (Linköping, Sweden) 59

Electronic nose based on metal oxide semiconductor sensors and pattern recognition techniques: characterisation of vegetable oils
Y. González Martín, M. Concepción Cerrato Oliveros, J.L. Pérez Pavón, C. García Pinto and B. Moreno Cordero (Salamanca, Spain) 69

Nitrate-selective optical sensor applying a lipophilic fluorescent potential-sensitive dye
C. Huber (Regensburg, Germany), I. Klimant (Graz, Austria), C. Krause, T. Werner and O.S. Wolfbeis (Regensburg, Germany) 81

Disposable clay-coated screen-printed electrode for amitrole analysis
J.-M. Zen, H.-P. Chen and A. Senthil Kumar (Taichung, Taiwan) 95

Use of poly(2-acrylamido-2-methylpropane sulfonate) modified with tetraethyl orthosilicate as sensing material for measurement of humidity
P.-G. Su, I. Cherng Chen and R.-J. Wu (Hsinchu, Taiwan) 103

Electroanalytical chemistry

Integrated square-wave electrochemical detection of biogenic amines in soybean seeds following their separations by liquid chromatography
R. Pineda, A.D. Knapp, J.C. Hoekstra and D.C. Johnson (Ames, IA, USA) 111

Flow injection square wave cathodic stripping voltammetric determination at a hanging mercury drop electrode of rapidly reduced compounds. Determination of diacetyl in wine as 2,3-dimethylquinoxaline
J.A. Rodrigues, A.A. Barros, P.J. Almeida, P.G. Rodrigues (Porto, Portugal) and A.G. Fogg (Luton, UK) 119

Electrochemical characterisation of uric acid and ascorbic acid at a platinum electrode
H. Ernst and M. Knoll (Münster, Germany) 129

Release study of drugs from liposomic dispersions using differential pulse polarography
C.G. Kontoyannis and D. Douroumis (Rio-Patras, Greece) 135

Chemometrics

Resolution (and quantitation) of mixtures with overlapped spectra by orthogonal projection approach and alternating least squares
A. Garrido Frenich, D. Picón Zamora, J.L. Martínez Vidal and M. Martínez Galera (Almería, Spain) 143

Application of diffuse reflectance infrared Fourier transform spectroscopy combined with artificial neural networks in analysing enantiomeric purity of terbutaline sulphate bulk drug
S. Agatonovic-Kustrin (Townsville, Australia) and R. Alany (Auckland, New Zealand) 157

Resolution of ternary mixtures of rifampicin, isoniazid and pyrazinamide by differential pulse polarography and partial least squares method
M.A. Alonso Lomillo, O. Domínguez Renedo and M.J. Arcos Martínez (Burgos, Spain) 167

Direct analysis of amiloride and triamterene mixtures by fluorescence spectrometry using partial-least squares calibration
J.A.M. Pulgarín, A.A. Molina and P.F. López (Ciudad Real, Spain) 179

Flow analysis

Spectrophotometric determination of sulphur dioxide and hydrogen sulphide in gas phase by sequential injection analysis technique
M. Kass and A. Ivaska (Turku-Åbo, Finland) 189

Dual-stream flow injection method for amplified electrochemical detection of ferrocene derivatives
P.T. Radford and S.E. Creager (Clemson, SC, USA) 199

Chromatography

Chromatography of ionizable positional isomers with methanol–water–carbon dioxide mixtures
D. Wen and S.V. Olesik (Columbus, OH, USA) 211

Separation of dimer acids using enhanced-fluidity liquid chromatography
J. Zhao and S.V. Olesik (Columbus, OH, USA) 221

Determination of trace amounts of niobium in steel by reversed-phase high-performance liquid chromatography with methyl isobutyl ketone extraction and pre-column derivatization
L. Dongling, H. Xiaoyan and W. Haizhou (Beijing, China) 237

Reversed-phase high-performance liquid chromatography on-line with the second and fourth derivative ultraviolet spectroscopy as a tool for identification of milk proteins
J. Dziuba, D. Nałęcz and P. Minkiewicz (Olsztyn, Poland) 243

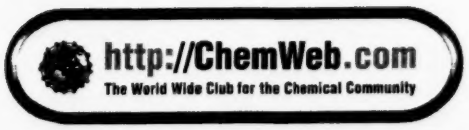
Raman and Rayleigh scattering

Analysis of the redox reaction of 9,10-phenanthrenequinone on a gold electrode surface by cyclic voltammetry and time-resolved Fourier transform surface-enhanced Raman scattering spectroscopy
T. Ishioka, T. Uchida and N. Teramae (Sendai, Japan) 253

Resonance Rayleigh scattering spectra for studying the interaction of heparin with some basic phenothiazine dyes and their analytical applications
H.Q. Luo, S.P. Liu, Z.F. Liu, Q. Liu and N.B. Li (Chongqing, PR China) 261

Pyrolysis-gas chromatography-mass spectrometry
Analytical pyrolysis of carbohydrates in the presence of hexamethyldisilazane
D. Fabbri and G. Chiavari (Ravenna, Italy) 271

Author Index 281
Calendar of forthcoming meetings N1



http://chemweb.com/gateways/elsevier.html

CONTENTS direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for **ContentsDirect** online at: **www.elsevier.com/locate/contentsdirect**

Full text of this journal is available, on-line from **ScienceDirect**. Visit **www.sciencedirect.com** for more information.